



MEMORIES OF THE LAKES
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"Such as I have Give I Thee--"

What One Farm Wife says



HAT'S what we *generally* do when we know anybody's in need. We women kind of pride ourselves that we never have failed in time of trouble, so I guess we won't fail now!

After all, this national unemployment crisis is just like the time when Joe and Mary Martin's house burned down in the dead of winter and we all turned to and gave them shelter and food and clothes until they could get started again. It's just a call for neighborliness on a big scale.

I always say that an emergency's no time to stop and argue. Same as when a blizzard strikes, the thing to do is to get busy and help.

I've put down a list of the things I mean to do right away. Here 'tis:

First off—

I'm going to see what fruits and vegetables and meats, or any other foods we raise, I can spare. I'll can them and hold them ready to send wherever they'll do the most good.

Second—

I'm going up attic and down cellar to see if I have any warm clothes I can give away, or pieces of goods I can make up into clothes.

Third—

I'm going to stir up all the action I can in our church and the Lodge—in the Grange—and in our other community organizations. I'm going to help get, and *keep*, us all enthused so that our local welfare and relief organizations will have plenty of food, clothing and money to take care of those in need.

It's time for us all to stand together. And if we do, we'll deal a death blow to Old Man Depression, and open the door to better days.

The President's Organization on Unemployment Relief

Walter S. Crawford Director

Committee on Mobilization of Relief Resources

Armed Forces Chairman

The President's Organization on Unemployment Relief is non-political and non-sectarian. Its purpose is to aid local welfare and relief agencies everywhere to provide for local needs. All facilities for the nation wide program, including this advertisement, have been furnished to the Committee without cost.

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AMERICAN FRUIT GROWER

VOLUME 51

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NUMBER 10

FREIGHT RATES AND RAILROAD WAGES

THE HEARINGS before the Interstate Commerce Commission on the petition of the steam carriers for a 15 per cent increase in freight rates have brought out a volume of opposition.

The evidence presented to the Commission on the effects of the proposed rate increase on producers of agricultural products, especially fruits and vegetables, gave little comfort to the interests seeking the increase. So conclusive was the evidence that few, even in the railroad and security circles, expect the Commission to accede to the request for any raise in rates on these products. Indeed, the cross-examination of witnesses on the agricultural side by the attorneys for rails and securities reflected a spirit of discouragement almost from the first by its perfunctory and listless character.

Some increases may be granted in lines of merchandise, especially in such lines where the value of goods transported is sufficiently high that an increase, even of the full 15 per cent asked, would reflect only a small percentage of the value of the product.

The carriers, it seems evident, will perforce have to look elsewhere for an increase in income, or a reduction in operating costs, and this brings the matter of railroad salaries and wages into the limelight.

Salaries in all departments of railroad service have been very generally reduced or are in process of reduction. But reduction in wages represents a more difficult problem, and can only be effected, in case of the dispute which must inevitably arise, after months of negotiation and arbitration.

A reduction in railroad wages in harmony with the prevailing lower living costs would work no hardship on railroad personnel. While it is true the wage scales still stand at the pre-depression levels, the actual earnings have fallen far below those levels, due to the large degree of unemployment prevailing on all steam roads.

A general cut of 15 per cent in railroad wage scales would have the effect of lowering the operating costs of the steam carriers and would have the ultimate effect of cutting down the proportion of unemployment on the railroads.

It is expected the Interstate Commerce Commission will render its decision shortly on the matter of the carriers' petition for rate increase. Immediately that is out of the way the carriers should begin negotiations with the Brotherhoods for a readjustment of wage scales.

AN UNSETTLING CALENDAR PROPOSAL

ONE OF THE MOST disturbing proposals of recent years, and one that would affect fundamentally the measurement of time, is the so-called "fixed" calendar, dividing the year into 13 months of 28 days

each, with a nameless "blank day" at the end of the year.

The consecutive, free-running week which has come down to us unchanged through the millenniums of the past would be abandoned in favor of an artificial seven-day period which would be readjusted each year (twice in leap years) so each year and month would begin on the same day of the artificial "week."

Day names would be retained but would have a wandering relation to the days of the true week. In 1933, when it is proposed to begin the new calendar, the weeks and days would maintain their correct identity until the last day of the year, which, falling on Sunday, would be disregarded as a day of the week. The next day, Monday of the true week, would be called Sunday, as would each succeeding Monday during 1934. In 1935 Sunday would shift to Tuesday of the true week, and in 1936 to Wednesday, until the mid-year "leapday" (another nameless orphan day), and for the remainder of that year the artificial Sunday would fall on the fifth day of the authentic week.

Every work of history and reference would require revision. Every holiday and anniversary would require readjustment. No statistical comparison could readily be made with the past. "Monthly" bills would be collected 13 times a year. The year would be incapable of division into halves, thirds, quarters, sixths, or into any aliquot parts of full months. And every religious denomination would be irreparably split as between adherents to the present calendar with its historic week and those who might feel free to adjust their temporal and spiritual affairs to the artificial time measurements of the wandering "week."

The present Gregorian calendar may be open to improvement. But the free-running, consecutive week that has marched down the ages with unbroken pace, an independent measure of time and recorder of history, must remain intact, its world-old integrity unshaken. Any proposal that contemplates interrupting the consecutive-ness of the week can bring little but confusion in its train.

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COAXING THEM UP THE LANE

By GEORGE R. HARRISON

ROADSIDE MARKETING for farm products does not necessarily mean that the stand is stationed immediately and exactly against the road. As a matter of fact, a too close contact with the highway is regarded by some farmers as being a disadvantage. Among other things, the produce to be sold may in that position gather the dust, and again it may be too much at the mercy of the class that is looking for bargains, just as it is prone to be among the stores in town. Better it is, says J. E. Smith, a successful Nebraska roadside marketer, to induce the buyers into the farm lane and on into the home premises, where quality can then serve the purpose of extracting from the purses its rightful amount of toll.

For a good many years Mr. Smith, as the partner of his father, J. J. Smith, founder of the place that they are pleased to call "Red Apple Farm," has been assisting in the plan that sells practically the entire output of orchards and vineyard to a repeating public that comes all the way out from town and up the

that do not sell so easily to the particular customers, become sweet cider for sale in glass bottles and jugs or in any kind of a receptacle that the customer may bring along. As it is, there is absolutely no waste, and Red Apple Farm, that consists of only 32 acres,

good many miles to acquire his products at prices that would be fair to all concerned. And such it proved to be. Among his friends in Omaha Mr. Smith circulated the news of the fine apples to be had at the farm. A few customers came, and these in turn notified others. More trees came into bearing, wider was the news disseminated, and so supply and demand



In Oval.—The roadside sign at the Red Apple Farm.

Above.—The cider stand. City folks and farmers alike come for the supply.

Left.—Apples in baskets for sale at Red Apple Farm and some of the folks who buy them.

kept fairly even step along the years. Now Red Apple Farm is at its peak of production. Every acre counts. At the roadside there is no stand; only a fine red and white sign, including a suspended big red apple that Mrs. J. E. Smith painted for sign enhancement. "Drive In," is the simple invitation that the sign sends forth to automobilists from both directions along the now finely paved highway. And while the class that is a hunter for bargains at the sacrifice of quality, seldom ventures along the winding and wooded lane, the ones who already know Red Apple Farm for the quality of its products drive in year after year to satisfy their desires.

However, the Smiths explain that in speaking of high class custom they have no thought of personal wealth as measured by money. For among their customers are those who are relatively poor, but just the same they desire quality products, which fact places them in the high class of trade. And because of this difference as regards finances among high class trade, the Smiths plan to suit apple grades to the customer's pocket book.

"You hear tell a great deal about the need to grade apples for sale into their respective

Please turn
[to Page 12]

lane to the marketing house. From approximately 1500 apple trees the high class demand for apples and cider is supplied. And from a three-acre vineyard come the grapes, all of which are turned into grape juice, for sale in glass bottles and jugs.

No apple is so small and mean appearing that it cannot do something toward swelling the income for Red Apple Farm, for free from worms, as all the apples are every year, the culls and such varieties

produces more real income in any normal fruit year than do most of the grain farms several times that size.

Red Apple Farm just grew up in the roadside marketing idea. In the first years of its apple bearing, J. J. Smith, who established it, believed that if quality was there, and the city consumers knew about it, they would drive for a

IT WAS A WONDER TOUR

By E. P. WEAMER

WESTWARD HO! At last the initial day of the AMERICAN FRUIT GROWER Wonder Tour had dawned and waned and with the fading light the members of the party began to assemble in Chicago for the first glimpse of their fellow travelers. Although the party had dwindled in numbers from original expectations, it was soon found to lack nothing in congeniality and pep. Armed with yard long strips of ticket, our party boarded the "Olympian," crack Milwaukee train, and were indeed Westward Ho.

The two following days were well utilized in viewing the ever-changing landscape and getting better acquainted, as the Olympian rushed on with a perfect schedule for the first rendezvous with the Golden West. Appetites whetted

the train. Montana's warm reception was followed by the cool, pleasant atmosphere of the mountain regions. Scenic grandeur unexcelled was spread on all sides and the travelers were even reluctant to turn in at bed time for fear they might miss something. Pre-sunrise hours

ever, an undercurrent of feeling was revealed in conversation with the growers when freight rates were discussed. The eastern grower with a near by market was called lucky. Here, too, the visitors were introduced to another amazing feature of the country, the ever-expressed, unlimited potentialities of every phase of western life. Every individual, whether a real estate agent or otherwise, was sure that his own community or product was without equal in all the kingdom. Our first lesson well learned—the power of advertising!

In the orchards the eastern growers soon found that their western brothers

Paradise Inn at Mt. Rainier National Park.

Group of men of Wonder Tour party inspecting pear orchard in Hood River Valley.



Picking oranges near Los Angeles in the orange empire.

The Gentleman from Virginia (A. W. Chilcott) and the good looking dates.

were the rule for some of the party in their thirst for beauty, and "Bill," our very efficient porter, found it hard to catch his winks before the first of the crowd appeared in the morning.

At Ellensburg, Wash., our car was set out for our inspection trip through the Kittitas and Yakima valleys and our first real taste of western hospitality. The amazing aspect of the two valleys was the extensiveness of the irrigation projects and the unlimited possibilities of the soil, once the life-giving flood had been unleashed. How-

had different problems to contend with and that these were handled in very emphatic fashion. The necessity for efficient, low-cost production was mother to the methods which they used in their work. And to say that they did all things well would be putting it very mildly. Here in Yakima the tour visited a modern cold storage plant and a packing plant where apricots were being graded and packed.

From this point the tour journeyed further west to that wonder city—Seattle. By this time everyone had become accustomed to being met at all our stops by prominent officials, ready to do their utmost to make our visit a pleasure. Joe S. Weeks, the South Carolinian representative on the Tour, was elected to be the group head and his name was always the first in demand at each new point of debarkation. His collection of name cards increased daily.

In Seattle the time was well utilized with sightseeing trips by land and by water, thus emphasizing the great natural beauty and fitness of the location as a city and ocean port. Top coats were a [Please turn] pleasant accessory here if [to Page 13]

by countless walks to the observation platform were appeased by the splendid meals and unexcelled service in the diner. The bachelors in our party lost little time in getting acquainted with a choice assortment of "peaches," Yellowstone bound, and were indeed inconsolable when the park coach was cut from

THE WASHINGTON APPLE INDUSTRY

By J. T. BREGGER

AFTER SEVERAL YEARS of leading in the United States production of apples, culminating in the 1930 season in which 40 per cent of all commercial apples grown in the country were produced in this State, the world has come to realize that Washington must produce apples in a large way. Even though this be true, the "bigness" of the Washington apple industry does not lie in any immense acreage, but rather in the wonderful adaptability of Washington's climate and soil to apple growing in the few districts where this industry has become so well developed, and in the completeness and efficiency of each orchard operation as it is carried on by the average fruit grower in these districts. The meeting of big problems in this industry has been no small factor in producing a corresponding magnitude in the methods by which they are solved.

Sureness of crop over a period of years is bound to result in a certain stabilization. It has been ascertained that for Washington as a whole, the chances of securing a full crop of apples is 85 per cent. In many of the smaller districts this runs much higher, almost to 100 per cent. Compare this with the situation in some of the middle-western States where the chances of a crop have been reduced by climatic and other factors to 55 per cent. This situation is necessarily very important and accounts in a sense for Washington's pre-eminency in the apple growing field.

As stated before, the actual acreage devoted to apples in Washington is not large. It has been estimated, for instance, that if all the bearing orchards existing in the great Wenatchee-Okanagan district, reaching from the Cascade Mountains on the west to the Big Bend wheat plains on the east, and from the exact geographical center of the State on the south to its northern boundary on the north, were placed in one solid block, the area would be only slightly greater than a section of land seven miles square. Such a section, however, produced in a year like last year over 22,000 carloads of apples. This means, of course, an average per acre

production of around 500 boxes, and though that average may sound high, yet there are dozens of commercial orchards in the district averaging over 1000 boxes per acre, several of them maintaining that average for many successive years, and with an occasional yield of over 2000 boxes.

So much for yields and actual production. An equally interesting phase, however, is the high efficiency of the orchard practices which result in securing these yields and maintaining a high quality of fruit to go with the quantity. Let

The Washington apple grower must first of all prune for production. Since he is obtaining annual crops, he must also make his pruning an annual procedure. In this pruning, he is not only putting his trees in the best condition to support the present season's crop of fruit, but he is looking ahead to future crops and seeking to main-

tain as nearly as possible, a normal and sufficient amount of new vegetative growth each year. The limiting factor has become one of sunlight and sufficient area for the increasing number of growing points, rather than lack of plant food or water in the soil. Maintaining a good vegetative growth each year keeps the bearing wood comparatively

young and it is young bearing wood, even in an old tree, which produces the heavy crops. The development of ladder spaces is another phase of pruning practiced by the most progressive growers. Detailed pruning becomes more and more necessary as the tree ages, and is probably one of the newest problems which the Washington apple grower is facing today.

Fertilization and irrigation might well be mentioned at this point. Owing to the fact that the average apple orchard in Washington was set on deep, fertile bench land, such soils have not required a maximum of fertilization. They do need organic matter, however, and this requirement has been met with the use of the perennial cover crop, alfalfa or sweet clover, which is not even cut, but allowed to remain in the orchard to build up the deficiency of organic matter



Washington apples yield average 500 boxes per acre and, not infrequently, yields of as high as 1000 boxes per acre are obtained.

New plantings are made and new orchards come into production every year.



There has been some evolution in thinning methods. Thinning is now done on the basis of the weight each branch is capable of supporting.

The Washington grower is reasonably sure of a heavy annual crop.

But, after all, the apple is not Washington's most important product, nor its best or most attractive.

(Photos courtesy Aschel Curtiss, N. P. Ry.)



us look over some of these operations, such as pruning, thinning, spraying, tree spacing, etc.

and augment the nitrogen supply. When lack of fertility is a factor, it is more apt to be evidenced by the growth of cover crop than anything else, and the orchardist uses this as an index in supplying

the needed elements which are rarely any more than just nitrogen and occasionally phosphorus.

Irrigation is a normal orchard practice in the Washington fruit district. It would be considered, perhaps, a difficult and expensive practice to the eastern grower not familiar with it, and yet irrigation, in giving the trees their normal and continuous requirement for water in a timely way, is a large factor in the annual fruit crop of which the fruit growers in this State can boast. The average irrigation requirement of a representative district is probably around 40 acre inches. Methods of application vary somewhat, as well as the sources of such water which in some cases is pumped to elevations several hundred feet above the source of supply. Application, whether by furrows or the sprinkler method, still has its problems as far as distribution and effect upon the tree are concerned and these must be met by each individual orchardist according to his own conditions.

Orchard tree spacing is probably a feature of apple growing less discussed in proportion to its full value than any other one. Because trees in the average Washington orchard were set too close in the beginning, it has been necessary to do a lot of spacing. This has gone on for many years and yet it is still as much a problem in the State as it ever was. Tree spacing and pruning go together, both having to do with the relation of the tree to the available water and plant food in the soil and the sunlight which it receives from above. Shading of fruit and foliage is a suicidal condition as far as high grade fruit production is concerned and tree spacing will sometimes relieve a crowded or shaded condition to the extent that half of the trees of an orchard may be removed and still double the production of that particular orchard in two years' time. This sounds uncanny, but it has been absolutely demonstrated in many instances.

Fruit thinning is another orchard practice so closely related to the success of the Washington fruit grower that it is almost a part of it. The Washington apple grower would not think of raising a crop of fruit without thinning, and yet there are thousands of fruit growers in other parts of the country who hardly know what thinning is. There has been some evolution in thinning methods and although the actual mechanics have changed very little, the growers are becoming far more scientific in the application of underlying principles. Formerly thinning was done largely on the basis of distance between fruits. Now, however, it is done more upon the basis of what weight of fruit a tree or branch can support, with particular reference to the ratio between fruit and foliage. Since practically all plant food which goes into the apple must come from the leaves, thinning not only reduces the amount of fruit in proportion to leaf surface to the point where apples of large sizes can be produced, but provides for a sufficient excess of plant food to be stored in the branches to produce ample twig and terminal growth the following year. On such growth, the future crops will be produced. In this relationship, thinning does tend to promote annual bearing, even though the following season's crop may not be affected.

It is doubtful if the solution to a problem is in many cases greater than the problem itself. This is particularly true when we begin to discuss the spraying practices of the

Washington apple grower. The codling moth is not his only pest problem by any means, but for many of the apple growers it is the greatest one. On the other hand, some growers are located at higher elevations where this problem hardly exists. When the numbers and resistance of the codling moth become so high, ordinary spraying methods fail to give the good control which is absolutely necessary to raise profitable fruit. To one not acquainted with severe codling moth infestation, the situation in some orchards of the lower valleys can hardly be realized. Trapping has given the grower a method to determine the severity of the codling moth problem in his own orchard, even though this actually reduces the moth problem to only a slight extent. Moth catches of 30 to 50 moths per trap are not uncommon in the warmer districts during the height of a brood. A record catch in such an orchard is 592 moths caught in 10 traps on one night. Imagine, if you can, the number of eggs (potential apple worms) which would be laid by an equal or greater number of moths uncaught in this particular orchard!

Naturally, such a situation calls for super-spraying methods and spray material which will stop rapidly hatching and active worms from entering even a small portion of the fruit. Oil-lead arsenate combinations have partly come to the rescue. Subsidiary methods of codling moth control have also been practiced. In all fairness, it must be admitted that so far the fruit grower has in most cases been the victor in the great battle. However, the cost of victory has been great and the enemy seems stronger than ever, so that the history of this war still to be written is likely to contain greater battles than have already been told.

The Washington fruit grower who has battled his enemies with all the way from three to 12 spray applications per year, has naturally become a very efficient sprayer. He has first of all used spray machinery which has been developed to a high degree of efficiency, and has made particular use of the stationary spray machine. In a single county, where Wenatchee is located, there are approximately 1200 of these machines in use in comparison with a few over 400 of the portable type. With these efficient spray machines pressures from 400 to 550 pounds are produced, with which the sprayer can deliver spray material to all parts of every tree and covering every square inch of leaf and apple surface. Of course, this is the ideal, but it is actually approached very closely by the efficient sprayer who may apply as much as 30 to 35 gallons of spray mixture per application to each tree.

The codling moth is not the only pest in the State, because at the present time, the tarnish plant bug is giving considerable concern to the apple grower. Perennial canker is a severe problem in a few districts with its carrier, the woolly aphid. Powdery mildew has not yet disappeared from the main commercial districts, and the mouse and gopher often prove most troublesome pests. And yet, because the Washington apple grower is on the job practically every day of the year, looking forward and producing the next season's crop of fruit even before the blossoms are formed, and keeping abreast of his problems by using the latest recommendations coming from the United States Department of Agriculture and State experiment station research, he is still master of the situation.

FALL FERTILIZATION

RECENT experimental results indicate the desirability of fall fertilization of fruit trees. Growers have been hesitant to practice fall fertilization because of the fear of leaching losses.

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DETROIT

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1931

GETTING READY FOR WINTER

By T. J. TALBERT

FOR THE early planting of vegetables and truck crops, it is advisable to have the ground plowed where possible the preceding fall. Gardeners and truckers generally are aware of the fact that fall or early winter plowed ground dries out earlier in the spring than unplowed soils. It is often a decided advantage to disk the soil before plowing, as the disking facilitates plowing, and when the soil is turned under the finely pulverized surface soil is at the bottom of the furrow.

Through plowing in the fall or early winter and leaving the ground in a rough condition, moisture is stored in the soil through the holding of snow and rain-water. Moreover, the decomposition of vegetable matter plowed under takes place rapidly and often is capable of making the soil more retentive of moisture during the following growing season.

Many insects and diseases are destroyed through late fall and early winter plowing, such, for example, as cut worms, grub worms, codling moth, curculio, cabbage worms, Colorado potato beetle, the apple scab fungus, and others. The deeper the plowing and the more thorough the job, the more likely the destruction of injurious pests. Some are destroyed by the destruction of their winter quarters, others by exposure to birds and animals, some by burying deeply, and still other insects are uncovered in the various stages through which they pass the winter, and the severity of winter conditions destroys them.

Where for any reason soils wash badly, as on steep slopes or where the organic matter of the soil has been greatly depleted on more gentle slopes, fall and winter plowing may facilitate leaching and washing. This may be particularly true in regions where the ground is not covered by snow or frozen for considerable periods during the winter season. Where such protective coverings as snow and the freezing of the surface soil to considerable depth does not take place, the rains which usually fall may cause so much washing and leaching that the good effects from fall and winter plowing are overcome.

General Clean-Up

In weed and grass-grown fence rows, many insects and diseases may be carried over during the winter season. If the dead grass and weeds, sprouts, and the like are cut out and the fence row burned or plowed, it is certain that many pests will be destroyed. Moreover, the appearance of the premises is greatly improved by such clean-up work.

Ravines, low places, and patches of soil which are unsuited for cultivation may become harboring places for injurious diseases and insects. Obnoxious weeds, like jimson, smart weed, cockle bur, plantain, dock, and others, may be perpetuated in such places from year to year and furnish an abundance of seed for distribution to cultivated soils. Through a general clean-up in the fall and winter of dead grass, leaves, weeds, brush, etc., obnoxious weeds and many of

the injurious insects mentioned above may be destroyed.

Many codling moths may be found in drop and cull apples in the orchard. These should be picked up and buried or burned. Where it is possible to plow the orchard to a fair depth, most of the larvae attempting to winter under cover on the ground will be destroyed. Some fungi and rot-producing organisms harmful to fruits may also be destroyed through the destruction or utilization of drop and cull apples.

The fall and winter season affords during nice weather an ideal time for the removal of the rough and scaly bark on the trunks and larger limbs of apple trees. Through the

larvae that emerge the following spring will be unable to reach the orchard. Through the adoption of such preventive methods in the fall, the grower may supplement in one of the best ways careful spraying work the following season.

Care of Machinery

To prolong the life and usefulness of spraying and dusting equipment, it is important that it be properly cleaned and oiled before storing. No time during the season is so well suited to this work as the late fall and early winter season. All metal parts that are likely to become rusty should be oiled; and where spraying materials have corroded or injured

etc., on hand. If this is done in the fall at the time of storing and sheltering the materials, it will be much easier and more pleasant than to attempt to do the work in late winter or early spring when weather conditions are often disagreeable. If this information is at hand, the grower may make his orders for spraying chemicals in January or February when the weather is too bad for him to work outside.

In the check-up of spraying materials on hand, there will usually be found many empty barrels, kegs, etc., some of which may be returned to the concerns from which the chemicals were purchased for reasonable refunds.

It is perhaps more important that the storage of spraying chemicals be performed properly than even the storage of spraying accessories and equipment. This is true because the spraying chemicals may be ruined by weather conditions and through leakage if not properly handled.

Storing Fruits and Vegetables

It is never advisable to place in storage fruit which is unsound or improperly matured, or which is affected badly by disease or insect injuries. No matter how good the storage may be, it cannot cure the blemishes and injuries produced on the apples before entering storage. Better results will usually be secured if the containers, such as barrels, boxes, and baskets, are closed. If the containers are not closed the fruit

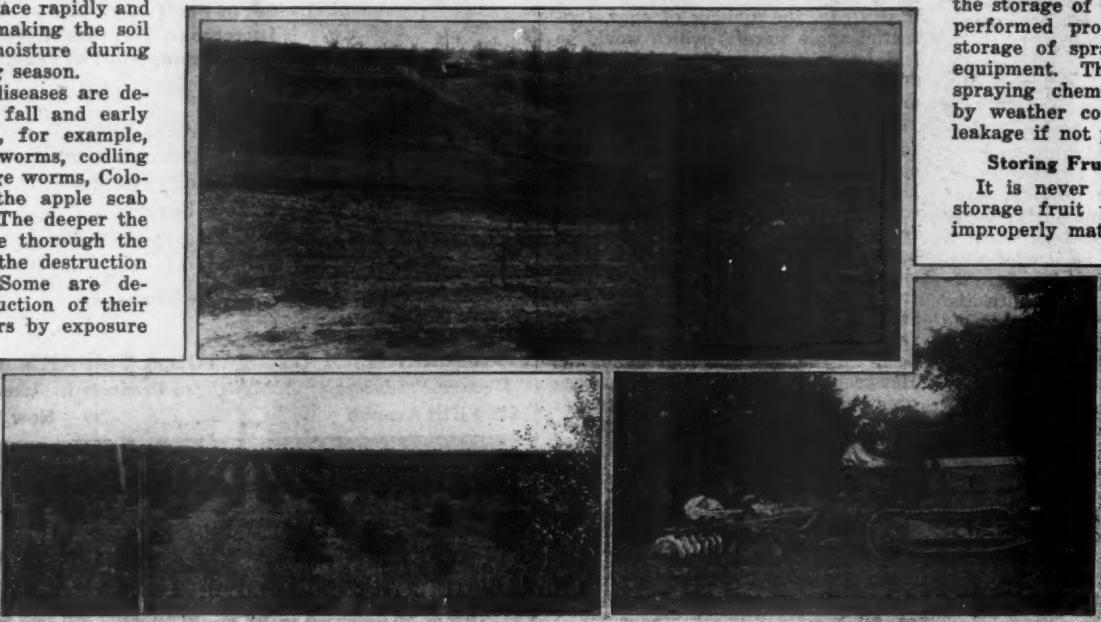
may shrivel badly, and be exposed to rot-producing organisms which may cause early decay.

The most important requirements for a good storage cellar are as follows: Protection from frost, a uniform and unvarying temperature of about 40 degrees or lower, and sufficient moisture to prevent evaporation and shriveling of the fruit.

It is also important that apples be clean and dry when placed in storage. If they are wrapped in oiled paper, or even ordinary newspaper, they will generally keep better and longer than if unwrapped.

Fruit warmed by the sun or brought in during the heat of the day is not as satisfactory for storage as if allowed to cool out before being placed in storage. The cooling of the fruit may be accomplished over night by allowing the crates or containers to be exposed to the air. Where the fruit has been allowed to cool in this manner, it is important that it be stored in the morning while still cool. In stacking the fruit in the common storage cellar or house, it is preferable to stack the slatted crates one upon the other and leave at least six to eight inches between the crates and the outer walls. It is also generally well to have corridors or passage ways between two or three sets of crates.

It is very important for best results in common storage to see that ventilation is obtained, particularly during the fall season, at the time the fruits are being stored. This



Top.—Fruit farm showing good care. Left.—Grass and weeds in and near the orchard should be destroyed. Right.—Destroying codling moth and apple scab by cultivating.

removal of this bark many codling moth larvae are actually killed and others are exposed to the elements and may later be destroyed. This supplementary practice adopted by fruit growers in the control of the codling moth has been found very beneficial, as the over-wintering brood of worms is always greatly reduced. A special effort should be made to not only remove the rough scales and flakes of bark but to clean out the crotches of the large branches as well.

Every apple producer is well aware of the fact that generally more difficulty is experienced in the control of codling moth near the packing shed than elsewhere. This is almost always due to the fact that apple crates, baskets, boxes, barrels, and other packing or handling equipment is often left scattered about the packing house. In this equipment, on it, or under it many codling moth larvae may spin cocoons and pass the winter in the larvae stage. Special attention, therefore, should be given during the fall and winter season to a thorough clean-up of the premises around the packing shed. This should include the storing in the shed of all picking and packing equipment. If the packing house is not already screened with fly screen, it should be before springtime. If properly screened the codling moth

wood or metal parts, it may be necessary to clean off the same and paint or oil in order to secure preservation.

It goes without saying that all the implements used in or about the orchard, garden, or truck patch should be put under cover in the fall of the year. If this is not done, such equipment may rust and deteriorate more during one season of "standing out" than would occur as a result of several years of proper and judicious use.

While going over the machinery and implements used during the past season, notes should be made regarding repairs required for the next season's work. The additions required should be listed. This work can usually be done without much trouble or time and should aid the grower greatly in handling his problems efficiently during the next season. In fact, work done during the fall and winter may so forward the various undertakings as to mean the difference between success and failure.

Spray Chemicals

While attending to the machinery and equipment connected with the work of the orchard and garden, it is well also to make an invoice of the amount of arsenate of lead, blue vitriol, lime-sulphur, oil emulsion, dry lime-sulphur, dusting materials,

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may be accomplished by leaving the doors and windows open during cool nights when the outside temperature is lower than the inside temperature. It is important to see that the windows and doors are closed early in the morning before outside temperatures rise. Through such practices the temperature may be lowered markedly. Where the humidity is low it may be raised by sprinkling the floor at intervals. This, however, will seldom be necessary except in cases where concrete floors are used.

Use Wrappers Against Rabbits*

The only safe way to prevent rabbits from gnawing the bark of the trunks of young fruit trees is to wrap the base of the tree trunks from the ground to a height of about 18 to 20

inches or the space between the ground and the lowest branches. Where the branches are less than 18 inches above the soil, the wrappers should include both trunk and branches to a height of about 18 or 20 inches. Various kinds of wrapping material may be used. Some of the most common are one-inch mesh poultry wire, galvanized window screen wire, having three or four meshes to the inch, old newspapers, gunny sacks torn in strips six to eight inches wide, and cornstalks. Wood-veneer wrappers, patented wire wrappers, tarred paper and building paper may be bought and used.

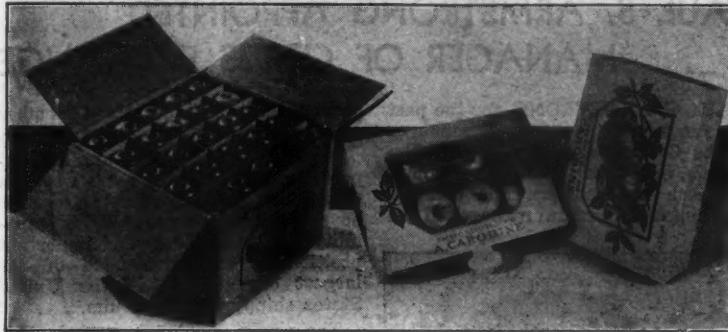
*See also, "New Sulphonated Oil Treatment Stops Rodents," by Harold Harris, in August issue.—Ed.

PACKAGING APPLES IN CORRUGATED BOXES

By ROBERT H. BURSCH

SEVERAL reasons have been given for the growth of corrugated paper packaging for apples, not the least of which is the fact that growers and commission men alike have found that apples in the new package not infrequently earn a price premium because of their greater attractiveness and consequent read-

early season pack of McIntosh and Spy apples arrived in good shape, the bulk packages of the late season pack which went into storage suffered a great deal from bruises. As Mr. Carobine tells the story, it took hours of arguing to persuade one grower to try 500 packages in paper when it came time to pack the 1914



Two popular "corrugated" apple packs.

ier sale to consumers. Added to this advantage is the fact that paper containers can be shipped and stored flat before use and then handled with equal or greater ease and convenience after packing while the apples are in transit or storage.

The experience of one large New York City commission firm would seem to bear out this view. For more than 35 years, A. Carobine has been a prominent figure in Washington and Harlem markets handling a great deal of the New York State and Massachusetts apple crop.

In 1914 he began experimenting with corrugated paper containers after observing that although the

crop. He finally won his point and in due course the packages came into the market, giving New York one of its earliest experiences with graded apples, neatly arranged in corrugated paper boxes.

The packages sold very well, and what proved most convincing to this particular grower was the fact that his corrugated paper packages brought a higher price per bushel than did the regular pack. The following year the Carobine firm offered 5000 paper packages in the market and increased this number from year to year until in 1930 the high water mark of 150,000 was reached.

LESSER PEACH BORER CONTROL

PARADICHLOROBENZENE dissolved in crude cottonseed oil at the rate of one pound of the chemical to two quarts of oil and applied with a paint brush is the latest and most satisfactory control measure for the lesser peach borer, reports the United States Department of Agriculture following three years of investigation at Fort Valley, Ga., on the part of Oliver L. Snapp and J. R. Thompson of the Bureau of Entomology.

There are two kinds of borers which attack peach trees, the peach tree borer and the lesser peach borer. The former works on the trunk just underground, while the latter always attacks the tree above ground. It is found working in areas where the trunk or limbs have been injured by implements, whittle trees, harness

chains, or other mechanical agency. These insects do not usually kill peach trees, but entomologists and commercial peach growers recognize them as costly pests.

The department recommends that the paradichlorobenzene-cottonseed oil wash be applied a few inches beyond the infested areas and that the bark be soaked thoroughly. Only infested areas and the adjoining bark should be treated. The tests showed that the wash gave satisfactory control when applied either in April or October.

Circular 172-C, "The Control of the Lesser Peach Borer with Paradichlorobenzene Solutions," may be obtained free by writing to the Office of Information, Department of Agriculture, Washington, D. C.

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Auburn introduced bridge-like X-member, making frame extremely rigid

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CROP REPORT COMMENTS

Apples

THE TOTAL APPLE crop is now forecast at nearly 223,000,000 bushels. If this crop should materialize it would be about 28 per cent larger than the average production during the five years 1925 to 1929. On the other hand, the commercial crop as forecast on September 1 at 38,933,000 pounds would be only about 19 per cent larger than the average production during the same period.

The increase in the forecast from August 1 was general in all sections of the country, the greatest improvement in prospects taking place in the South Central division where much of the production is in general farm orchards. In New York the prospects increased about 3.5 per cent over the figure for August 1 but is still some two per cent smaller than the average production during the five years, 1925-29. The total Virginia crop improved slightly during August while the commercial figure declined. In the two important Pacific Coast States, Washington and Oregon, prospects for the total were unchanged from a month ago, though the commercial forecast in Washington declined about three per cent due to worm damage in both the Wenatchee and Yakima districts.

Peaches

The total peach crop is forecast at 77,722,000 bushels, which would be about 45 per cent above the production in 1930, 70 per cent above 1929, 14 per cent above 1928, and 11 per cent above the record crop of 1926.

Excluding from the present estimate the 21,000,000 bushels of peaches produced in the 10 southern States where the crop has mostly been disposed of, and about 17,000,000 bushels of California cling peaches used chiefly for canning, the remainder of the crop appears to be about 40,000,000 bushels compared with about 21,000,000 bushels in 1930, 27,000,000 bushels in 1929 and 39,000,000 bushels in 1928.

Reports from all sections indicate an unusually large peach crop of good quality. Size in some instances has been reduced however by the heavy set of fruit which was not adequately thinned. This is especially true in areas where rainfall or irrigation water have not been abundant. Although the low prices now prevailing are greatly increasing the use of peaches for home canning and preserving, it is probable that large quantities of peaches included in the present estimate of production will be left unharvested.

Pears

The pear crop is forecast at 24,100,000 bushels. This is practically the same as the forecast of August 1, and would be 13 per cent below production last year and nine per cent above average production during the previous five years.

With a light set of fruit followed by favorable weather in most important areas, good size is reported though worm damage is reported heavier than usual in some sections. The California Bartlett crop was mostly harvested in several of the interior counties before the severe hot weather of August set in.

Grapes

Grape prospects declined seven per cent during August as a result of drought heat and insect damage in California, where the condition of the crop is 52 per cent compared with the previous low record of 63 per cent in 1921. New York, Pennsylvania, Ohio

and Michigan, the leading grape States of the East, still expect a crop of 204,000 tons, which would be well above their usual average. With the California crop placed at only 1,356,000 tons, however, the forecast of the total crop of the United States is 1,653,000 tons compared with 2,460,000 tons last year and an average of 2,403,000 tons during the previous five years.

Potatoes

The total production of potatoes, including both the early and the late crops, is forecast at 361,036,000 bushels, on a reported condition of 87.4 per cent of normal on September 1. During August, there was an indicated decline of 9,500,000 bushels in the crop prospects for the country as a whole. While it is possible that growing conditions may prove either more or less favorable than usual between now and harvest, the forecast on present conditions points to a total crop about five per cent larger than that of last year. Excluding the estimated production in the 13 southern States and in Delaware, Maryland and Virginia, which are largely an early crop proposition, the production in the remaining 33 States is forecast at

295,938,000 bushels compared with 303,283,000 a month ago and an estimated production of 289,903,000 bushels in 1930. These 33 States which contribute most of the intermediate and late potato supply are therefore expected to have a two per cent larger crop than last year. The major declines in crop prospects during August occurred in the north central and western States as a result of hot weather and lack of water supplies.

Sweet Potatoes

The sweet potato crop shows improvement in production prospects during August, the reports on September 1 revealing no decline in the average United States condition during the month. The crop had the benefit of timely rains in many of the States, although in some instances, the rainfall appears to have been too heavy for desired tuber development. The crop on September 1 is forecast at 83,949,000 bushels or about 3,300,000 bushels more than was indicated on August 1. A crop this size would be more than one-third larger than the estimated production last year.

PAUL S. ARMSTRONG APPOINTED MANAGER OF CITRUS EXCHANGE

PAUL S. ARMSTRONG, for the past six years assistant general manager of the California Fruit Growers' Exchange, and widely known throughout the fresh fruit and vegetable industry, was appointed general manager of the

change, and until recently a member of the Federal Farm Board, stated:

"Paul Armstrong's training and experience during his 15 years with the California Fruit Growers' Exchange have clearly demonstrated his capability and fitness for this important position as executive head of the largest organization in the United States shipping citrus fruits."

The newly appointed general manager began his experience with the California Fruit Growers' Exchange in 1916, after graduating from Michigan State College, where he specialized in horticulture and marketing. Mr. Armstrong began at the bottom of the ladder as a member of the staff of the Sunkist dealer service department. His outstanding ability was soon recognized, and a year later, in 1917, he was made assistant advertising manager and placed in charge of dealer service work.

In 1921 Mr. Armstrong was appointed advertising manager of the exchange, and under his direction many new advertising appeals for California oranges and lemons were developed. Recognizing his ability, the Exchange board of directors elected him to the position of assistant general manager in 1925, which position he has ably filled until his present appointment.



Paul S. Armstrong, general manager, California Fruit Growers' Exchange.

California citrus co-operative on August 12.

Mr. Armstrong succeeds Earl G. Dezell, who recently passed away, as executive head of the Sunkist organization which ships over 75 per cent of the California citrus crop each year. The 1930 Sunkist annual report shows that this organization did a business in that year in excess of \$100,000,000.

In making public Mr. Armstrong's appointment, C. C. Teague, president of the California Fruit Growers' Ex-

PENAL OFFENSE TO ALTER INSPECTION CERTIFICATES

THE United States Department of Agriculture has discovered a few instances in which shippers or dealers have changed statements on the inspection certificates issued by the Food Products Inspection Service of the Bureau of Agricultural Economics. The department wishes to emphasize that the Federal Penal Code forbids the alteration of such documents and warns shippers and others that it will take action against offenders whenever it can obtain evidence of tampering with inspection certificates.

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FUMIGATING PERSIMMONS

By C. W. GEIGER

LARGE QUANTITIES of persimmons are now being exported on steamers operating out of San Francisco. As a precaution against insect infestation all persimmons for export are fumigated. One of the accompanying photos shows a large shipment of persimmons leaving the vacuum-chemical fumigation plant operated by the California Cotton Mills Company adjacent to the State Products Terminal on the San Francisco water front. The persimmons are taken directly to the Matson Navigation Company docks and loaded into the refrigerated compartments of a Matson steamer.

The fact that a fruit packer or shipper can guarantee fruit products at the time of shipment as thoroughly sterile, so far as possible insect infestation is concerned, is a big sales help. Many fruit packers and dealers and growers have found that this sterilizing method for certain kinds

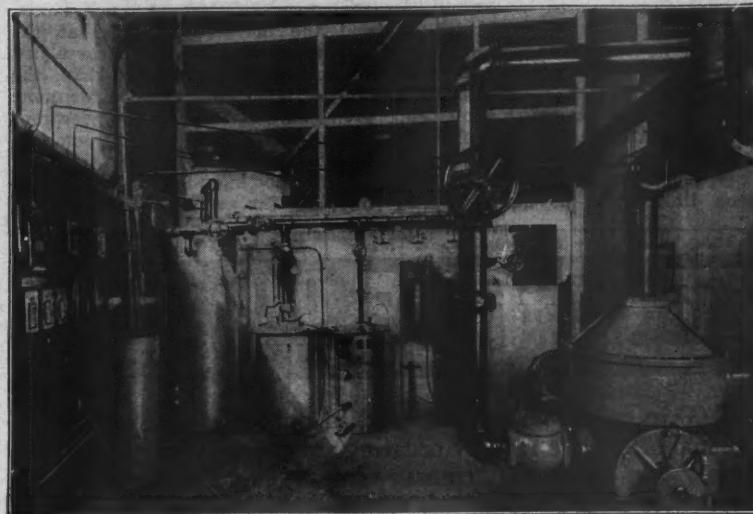
Gas mixing equipment is shown at left, vacuum pump at right.

Shipment of fumigated persimmons leaving the plant for steamer to be shipped to Hawaiian Islands.

by taking the air out (28 in vacuum) and letting gas take its place. The fruit to be treated remains in the original box and is loaded onto raised platforms. An electric lift truck is used to move the boxes in and out

are accomplished in a period of from two to three hours. This vacuum-chemical fumigation process is safe, leaves no odor and causes no damage to the fruit.

In selecting a site for this fumi-



of fruit enables dealers to handle the fruits at all seasons of the year without fear of insect infestation.

Carbon disulphide gas is used for sterilizing persimmons at the fumigation plant of the California Cotton Mills Company. The only way to get carbon disulphide gas into the fruit for the sterilization of insect life is

of the fumigating chambers. After being placed in the fumigation chamber and the door closed, a vacuum is drawn by the vacuum pumps, the carbon disulphide gas is allowed to enter the tank for a penetrating period, the gas is pumped off, and the fumigating chamber is air-washed with fresh air. All these processes

MICHIGAN FRUIT MEN ON MARKET TOUR

A GROUP of 40 members of the Michigan State Horticultural Society attended a one-day market tour early in September.

The growers visited the Fennville Fruit Exchange, one of the best equipped plants of its kind in Michigan where a \$15,000 fruit packing house was erected last year. This organization has also a newly erected \$20,000 electric cold storage plant with a capacity of over 40,000 bushels.

The factory methods of efficiency and a cold storage and pre-cooling plant which have been in use at the South Haven exchange for many years were viewed by the growers. Elberta peaches were being packed in tub bushel baskets. Manager Cornelius Buss declared that the hot weather and large crop were making a "tough" market, but the fruit was being moved nevertheless and to points as far distant as Houston and New Orleans.

At Benton Harbor the tourists visited the plant of the Great Lakes Fruit Industries, a regional fruit selling and processing co-operative, organized with the aid of the Federal Farm Board, and allied with the Fruit Growers' Union of Sturgeon Bay, Wis., and the Michigan Cherry Growers' Association.

Across the street the tourists were engulfed in the swirling tide of that modern wonder, the Benton Harbor municipal fruit market, where 1400 growers' loads, containing a total of 80,000 packages of produce, passed over the market. Local buyers were there in full force and outside buyers numbering 149 were there with their motor trucks from seven States. A volume of peaches equivalent to 101 carloads was sold, and the produce offered that day included apples, peaches, pears, plums, crabapples, grapes, cantaloupes, beans, cucumbers, peppers and tomatoes.—Herbert Nafziger.



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Win \$3,70000
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Can You Find 5 Faces?

People who were riding in the auto above got out of the car. Their faces are shown in odd places about the picture. Some faces are upside down, others look sideways, some look straight at you. If you can pick out 5 or more faces, mark them, clip the picture and send to me together with your name and address. Sharp eyes will find them. Can you?

We are giving more than \$12,000 in 103 prizes, in a great new plan of advertising our business. Also thousands of dollars in cash rewards. In a former campaign Mr. C. H. Easig, a farmer of Argos, Ind., won \$3,500; Mrs. Kate Needham, Oregon, won \$4,705. Many others won big cash prizes. Now a better campaign than ever with more prizes. In our new campaign someone wins \$3,700—why not you?

Send Today

You may win new Buick 8 Sport Sedan delivered by your nearest dealer, and \$2,500—or \$3,700 if you prefer all cash. Duplicate prizes will be given in case of ties. No matter where you live, if you want to win \$3,700 first prize money, send answer today for details. Can you find 5 faces in the picture?

ROGER SCOTT, Mgr., 427 Randolph St., Dept. 3158, Chicago, Ill.

\$1,000 Extra for Promptness

If you are prompt I'll give you \$1,000 extra if you win first prize. Send money now. It doesn't require a penny of your money to win.

COAXING THEM UP THE LANE [From Page 4]

sizes," said J. E. Smith. "Now this is all very well for the big commercial orchardist who sells wholesale to the regular big buyers. But it is not at all necessary here, and may be even detrimental to the orchardist who, like ourselves, caters to the consumer direct."

Mr. Smith approached some baskets to explain the reason for his stand. There was a market basket of Jonathans, the apples apparently all of the same size, the largest to be found in the orchard, and it was top-dressed after the ring-pack idea for barrels and boxes.

"Now that is a pack that appeals to that part of our trade that have the money without stint in spend-

ing," he added. "For that basket we get a dollar. But where there is one customer who prefers the even and ornamental pack, there are probably a dozen to whom this means nothing, and who actually want what we call a jumble pack, which means apples of various sizes all in one basket, and with the top ones just piled in like the rest of the contents. So long as the fruit is free from bruise or blemish, no objections will ever be heard."

The jumble pack for the baskets means economy, Mr. Smith explained. For while the basket sells for 25 cents less than the evenly graded and ring-packed containers, it has at the same time twice as many apples,

though it is shorter in weight than the other. And Mr. Smith elucidated thus:

"Suppose here is a family of six children. Some of the children cannot eat all of a big apple. A small child will nibble all around it like a rabbit might, and then throw most of it away. The children are given apples in their school lunch boxes, and the mother realizes that the smaller apples serve the purpose just as well as, if not better than, the biggest apples on record, for none is wasted. But in case the grownups of the same family desire some of the fruit from the jumble pack, they may find the big ones for their choosing. So far as flavor is concerned,

big apples and little apples of the same variety are the same in taste, for they come from the same trees. Of course, we can make up baskets in short order to suit any customer. And we must, for while one customer may desire the well filled, ring-packed container of even sizes, the next one to be served may call for something more common for cooking or general purpose."

All fruit is sold on the front porch, a wide and screened affair, of the regular marketing house that contains among other things the cider mill, fruit press, clarifier and filter. The variety of display is such on the busy days that customers may help themselves to a certain extent.

The cider for sale is made of the windfalls and culls and unpopular varieties. Grape juice from the three acre vineyard also is offered. In fact, all of the grapes are made into juice, for in that way the Smiths can set their own prices without having their grapes enter into competition with the hundreds of acres of grapes grown on both sides of the Missouri River at this point. While grapes were selling at \$1 per market basket by the regular grape growers, the Smiths were getting \$4.25 a dozen for bottled quarts of the juice, 40 cents for single bottles, and 75 cents for gallons, which, they say, means a fair profit on the crop any year.

"How much juice from a bushel of grapes?" J. E. Smith repeated after me. "Well, that would be telling, and, anyway, it depends upon how well the grapes are ripened. We let ours get perfectly ripe before we touch them, which means about three weeks later picking than that of the first ones generally sold into the fruit market by the regular vineyard men."

Every bottle or jug of cider or grape juice bears the "Red Apple Farm" label. Thus each container goes forth to advertise the farm to an ever-increasing radius of patronage. Bottles in dozens are enclosed in neat cartons that also bear the "Red Apple Farm" label. It is little wonder then that scores of people every day in the busiest season drive up the lane. The only times the farm truck has to take apples to town is when occasionally the early varieties of apples, like Duchess and others of early summer, ripen too rapidly to justify waiting for the customers to drive out.

Included in the list of apple varieties to run the supply through a long season are Jonathan, Northwestern Greening, Gano, Winesap, Black Twig, Grimes Golden, Red Delicious, Golden Delicious, Tolman Sweet, Sheriff, Northern Spy, Geniton (Ralls), Wealthy, Duchess, Red June, Missouri Pippin, and Early Harvest.

The only advertising ever resorted to has been the sign at the roadside and the labels on the containers. The quality of the product in addition has been sufficient to inspire the customers into volunteer service as Red Apple Farm boosters.

One measures by sight the distance the market house is from the roadside, and then decides it is at least 40 rods. And still it can be called a roadside market.

"We wouldn't want to be down there by the road," declared J. E. Smith. "There would be drawbacks. As it is, whenever we see a car coming up the lane we can rest assured that it belongs to someone who really seeks quality."

12¹ST PRIZES of \$625.00 each!

JUST recently over \$26,000.00 in prizes have been paid in our good-will prize distributions! These unusual offers are rapidly creating favorable advertising and making new friends. Now join our latest "treasure hunt!" Scores of val-

uable awards totaling over \$8,200.00 will be paid this time. Easier to win a first prize now—there are 12 equal first prizes of \$625.00 each and duplicate prizes for all persons tying when prize decision is made. Here's the test. Act quick!



Follow the Auto Trails

Can you do it? Every trail twists and turns, crossing other trails again and again. This baffling test is a challenge to your skill, but I'll give you a fair start, to make sure you understand.

Begin with trail marker No. 1 in the small circle at the left. If you can follow this trail through the tangle you will see it leads to the car marked "E." Some of the trails go from left to right, others from right to left. When you have done your best with each trail, write your answer like this: "Trail No. 1 leads to car 'E.'" "Trail No. 2 leads to car ..." and so on with all the trails. If you prefer, you can draw straight lines from each marker to the correct cars.

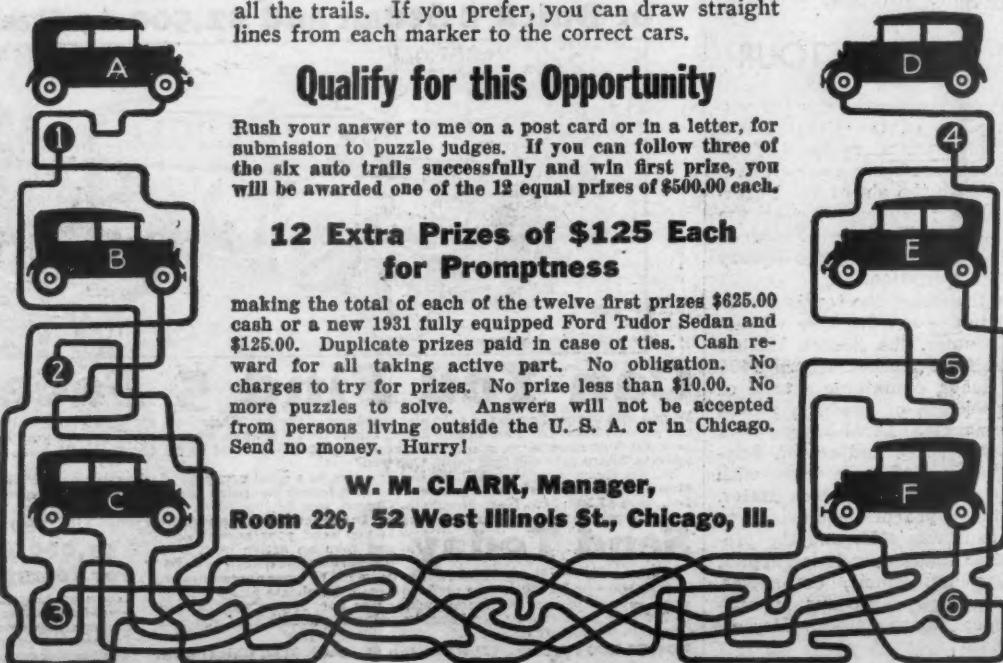
Qualify for this Opportunity

Rush your answer to me on a post card or in a letter, for submission to puzzle judges. If you can follow three of the six auto trails successfully and win first prize, you will be awarded one of the 12 equal prizes of \$500.00 each.

12 Extra Prizes of \$125 Each for Promptness

making the total of each of the twelve first prizes \$625.00 cash or a new 1931 fully equipped Ford Tudor Sedan and \$125.00. Duplicate prizes paid in case of ties. Cash reward for all taking active part. No obligation. No charges to try for prizes. No prize less than \$10.00. No more puzzles to solve. Answers will not be accepted from persons living outside the U. S. A. or in Chicago. Send no money. Hurry!

W. M. CLARK, Manager,
Room 226, 52 West Illinois St., Chicago, Ill.





THE SOURCE OF OUR READER'S PROSPERITY

AMERICAN FRUIT GROWER • • • • • OPPORTUNITY ADS

250,000 Buyers And Sellers Meet Here Monthly For Mutual Profit

A PROFITABLE HABIT
Read these ads each month. Answer those that interest you. It's a profitable habit. You may do business with our advertisers with full confidence of a square deal. Use an ad yourself wherever you have something to sell or want to buy something. Send your ad now; it costs only 20 cents a word. Be sure to count name and address. Each initial or whole number is a word. Our regular advertisers say it pays handsomely.

Harry K. Goodall, C. A. M., AMERICAN FRUIT GROWER, 1105 Merchandise Mart, Chicago

**DISPLAY-CLASSIFIED ADS**

are permitted in this section. There are two different styles. Number one: display ads using cuts of any kind, \$2.25 per agate line or \$31.50 per inch. Number two: display ads using type or type and border only, \$1.40 per agate line or \$19.60 per inch. Minimum size, 5 lines in either style. Display-classified ads in this section get extra attention. You'll be surprised at the splendid results. Send yours today to



"I Must Answer That Ad. It's Just What I Want."

AGENTS AND SALESMEN WANTED

SEND ME YOUR NAME AND ADDRESS AND I'll mail you absolutely free full details of a successful money-making plan that is bringing others \$10 to \$25 a day. ALBERT MILLIS, 9185 MOUTH, CINCINNATI, O.

BIG MONEY SELLING SHIRTS, TIES, UNDERWEAR, Socks, Raincoats, Lumberjacks, Sweaters, Leather-overalls, Pants, Playuits. OUTLET FIFTEEN: NIMROD CO., Dept. 102, 4922-28 Lincoln Ave., Chicago.

BRUSH SALESMEN. WE PAY HIGHEST COMMISSION and furnish your advertising gift brushes free. Real opportunity for experienced brush salesmen. The Donald Brush Company, Inc., Camden, New Jersey.

BIG PROFIT CATALOG: TOILET PREPARATIONS, Food Products, Remedies, Household Specialties, Portraits, Frames, Medallions, Christmas Cards. Credit. James Bailey Co., 666H, Blue Island Ave., Chicago, Ill.

MEN, WOMEN MAKE 22.00 HOUR. PRODUCT sells itself on demonstration. Territory open outside Chicago. Rush 10¢ for sample and attractive sales offer. Geo. H. Hans, 4828 Winthrop Ave., Chicago, Ill.

"RUN-PROOF" LADIES' SILK HOSE 73¢ Make \$75.00 Every Week. Spare or Full Time. Just Invented. Guaranteed. Full-Fashioned. "SAMPLE FREE."

MOSS (A.F.G.) CO., HARTFORD, CONN. 10-18

IF YOU CAN SELL A \$6.50 VALUE FAMILY Package, consisting of one Eight ounce bottle Vanilla Flavoring, Box Face Powder, Bottle Perfume and Pearl Necklace all for \$1.00 write us. Your profit 62¢ on each sale. CLYDE COLLINS CHEMICAL CO., DEPT. F, MEMPHIS, TENN. 10-10.

BABY CHICKS

C. O. D. ROCKS, REDS, WYANDOTTES, \$8.00. White, Brown Leghorns, Anconas \$7.00. Heavy mixed, \$7.50. Hatches every Monday. Mt. Healthy Hatcheries, Mt. Healthy, Ohio. 10-10B6.

GET MICHIGAN ACCREDITED CHICKS FOR Fall Broilers. Hatching Four Varieties weekly. Prices low, quality high. Dean Hatchery, Birmingham, Michigan. 10-10B4.

BUSINESS OPPORTUNITIES

PROFITABLE ONE MAN BUSINESS. TAKE orders and build new product, demand in every community. Write Demand Mfg. Co., Muskegon Heights, Mich. 10-12.

MONEY CRACKING BLACK WALNUTS PATENTED Invention \$4.00. Cracker Manufacturer, Kinzer, Pennsylvania.

DOGS

BEAUTIFUL REGISTERED BULL PUPS. \$15. Bulldogs, 501 Rockwood, Dallas, Texas. 10-11B6.

HUNDRED COONHOUNDS, FOXHOUNDS, RABBITHOUNDS, Blueticks, Bedpans, Blacktans. Supply Catalog. Beckkennels, A-15, Herrick, Illinois. 8-10.

COON, OPOSSUM, MINK, FOX, AND RABBIT hounds cheap; shipped for trial; free literature showing pictures and breeding. Kentucky Coonhound Kennel, Kevil, Kentucky. 10-10.

FARMS, ORCHARDS AND RANCHES

ORCHARD-3000 APPLE TREES, 100 ACRES. Good buildings. Timber. Box 558, Windber, Pa. 6-10.

LARGE SQUAR RANCH FOR SALE. ASK FOR particulars. Geo. Kramer, Lost Nation, Iowa. 10-10.

CHICKEN RANCH, MODERN RESIDENCE \$2500. 3 acres. Hoffman, Riverview Drive, St. Louis, Mo. 10-12.

FARMS WANTED

WANTED TO HEAR FROM OWNER HAVING farm or unimproved land for sale. Give cash price. John Black, Chippewa Falls, Wisconsin. 10-12.

FORMULAS

GUARANTEED FORMULAS, RECIPES, PROCESSES. 5¢ each. Catalogue free. Industrial Institute, Dept. 510, 66 West Randolph Street, Chicago. 10-10.

THIS BLANK IS FOR YOUR CONVENIENCE

Mr. Goodall, C. A. M.,
AMERICAN FRUIT GROWER,
1105 Merchandise Mart, Chicago.

I too would like to get very satisfactory and profitable results from my classified advertisements such as your regular advertisers report that they receive. Enclosed find \$_____ for which please publish my ad as per copy below in your next issue. I have counted my name and address as is customary and figured the amount at your regular rate of 20 cents a word.

HERE'S MY AD:

() Check here if you want your ad to run Till Forbid and billed monthly.
Name _____

Address _____
For "Results Beyond Your Expectations" Mail This Today.

FOR THE TABLE

GRAPE JUICE CONCENTRATE-A REAL DRINK made only from grapes. \$4 dozen cans charges prepaid. David Nichols Co., Kingston, Georgia. 10-10B6

HELP WANTED-MALE

EARN UP TO \$25 OR MORE GROWING MUSHROOMS in your cellar or shed. Illustrated booklet free. American Mushroom Industries, Dept. 500, Toronto, Ont., Can. 8-11.

INSTRUCTION

RAILWAY POSTAL CLERKS. \$155.00-\$225.00 monthly. Steady. Early examinations likely. Common education. Men 18-32. Sample coaching free. Write immediately. Franklin Institute, Dept. H, 505, Rochester, N. Y.

OF INTEREST TO WOMEN

HOOKED RUGS-EASY TO MAKE WITH "SUSAN BURR" machine, full illustrated directions, \$1.50 postpaid. Holley Associates, Eighteen Water Street, Torrington, Connecticut. 9-11.

LADIES SEW BROADCLOTH TEA APRONS FOR us at \$4.00 dozen. Cut aprons furnished. No selling. \$25 (coin) for instructions. Kowalski & Company, Brenham, Texas. 10-10.

OLD GOLD WANTED

CASH FOR GOLD TEETH. HIGHEST PRICES. Information free. Southwest Gold & Silver Co., Box 658, Fort Worth, Texas. 10-10.

*** YOUR MAGAZINE HAS OPENED A NEW FIELD ***

To you who have never yet used a classified advertisement in AMERICAN FRUIT GROWER, perhaps the experience of one of our new advertisers will be of interest. Citronelle Bee Company, Inc., formerly confined their advertising to Bee Journals, but last Spring they tried an ad in this publication. Here's what they say about it:

The results of our classified advertisements carried in the February, March and April issues of the AMERICAN FRUIT GROWER were beyond our expectations. This is the first time we advertised in other than Bee Journals. Your magazine has opened a new field for our products. (Signed) Citronelle Bee Co., Inc. Citronelle, Alabama, by J. T. Haertel, Sec'y.

If you are a bee raiser, this message from Mr. Haertel is of specific interest, but the application of the lesson learned by him should be of general interest to all users of classified advertising. You too will undoubtedly find after you have tried an ad in AMERICAN FRUIT GROWER that the results are "beyond your expectations." Send your ad for our very next issue today. Address:

Harry K. Goodall, Classified Advertising Manager
AMERICAN FRUIT GROWER
1105 Merchandise Mart, Chicago

WANTED, NEW PLANTS AND FRUITS WANTED

REWARD-STARK B.R.O.'S. NURSERIES, Louisiana, Missouri, are interested in buying new Ornamental Plants and New Fruits. Originators will do well to write us. We also offer a \$100 reward to the person who gives the first information regarding a new plant or fruit which we later introduce. 10-10.

NURSERY STOCK

PEACH AND APPLE TREES 5¢ AND UP. YELLOW and Blood Red Delicious. Grapes 3¢. Plums, pears, cherries, nuts, berries, pecans, Ornamentals. FREE catalog. Tennessee Nursery Company, Box 101, Cleveland, Tenn. 9-2.

PLANT HARDY GRAFTED NUT TREES

25% to 50% cut on prices. "The Hershey Way" makes fall planting safe. Write for cost of a commercial black walnut grove. Price sheet free. Cultural lit. 10¢. John W. Hershey, Box 650, Downingtown, Pa.

WE SELL ON THE CREDIT PLAN. BEST varieties. Apple, Peach trees low as 5¢, Grape vines 3¢; Shrubs 10¢; Evergreens 25¢. Seeds, bulbs, etc. Benton County Nursery, Box 501, Rogers, Ark. 10-3.

POULTRY AND EGGS

WHITE LEIGHORN HENS AND MALES NOW HALF price. Thousands of laying pullets. Baby chicks and eggs from trapnested, pedigreed foundation stock, egg bred for 31 years. Winners at 20 egg contests. Records to \$36 eggs. Catalog and bargain bulletin free. Write for special prices. GEORGE B. FERNIS, 922 Union, Grand Rapids, Mich. 10-10B6.

JERSEY, WHITE GIANTS "MARGY FARM Strains"-Permit 197. "Highest Quality" Chicks. Beautiful Cockrels, Pullets, Trios, Poms. "Whites and Blacks." Special Sale. Buy Now. Save Money. Descriptive Literature. "The Maples" Box 1883, Pittsfield, Illinois.

PIRE WINNING VIGOROUS HOLTERMAN strain Plymouth Rock cockerels, \$3.00; pullets, \$1.50 each. Mrs. J. J. Boggess, Route 4, Murray, Kentucky. 10-10B6.

COCKERELS, PEDIGRIED EXHIBIT TANCRED White Leghorns. \$5.00 up. Polled Dogs. \$10.00. Mrs. Jim Kink, Huntville, Missouri. 10-10B6.

SILVER PENCILED PLYMOUTH ROCKS. TRAPNED and pedigreed, beauty supreme. Stock, eggs and Chix. Sure Winners. Sil-Pen Rock Poultry Farm, Oldenburg, Indiana. tFB6.

POULTRY REMEDIES

SHU-FLU, BRONCHITIS (FOWL FLU), ROUP, colds, canker, remedy. Guaranteed quick relief and cure all ages poultry. Hundred treatments sixty cents. Col. Luke Hill, Saxonwood, White Plains, New York. 10-10B6.

POULTRY SUPPLIES

2000° F. FLAME of AEROIL TORCH DESTROYS all living organism. Free bulletin No. 99-X gives valuable information on "Proper Utilization." AEROIL BURNER CO., WEST NEW YORK, NEW JERSEY, CHICAGO and SAN FRANCISCO. 10-10B6.

POULTRY HOUSE PLANS

THE "DIAPHRAGM" AUTOMATIC FRESH AIR Poultry House is one of the greatest discoveries ever made in the construction of poultry houses. Embodies all the best features of other houses; it also offers something entirely new in an automatically ventilated Roosting compartment, which makes it possible to keep almost double the number of fowls that are usually kept in a house of equal size. The Roosting compartment can be installed in old houses at very little cost and will work perfectly at all times, as there are no mechanically operated controls to get out of order. Simple, easy to understand blue print plans and specifications, to build a 10 ft. x 16 ft. house or section of a long house, for \$1.00. Address American Fruit Grower, 1105 Merchandise Mart, Chicago.

QUILT PATCHES

QUILT PATCHES-FAST COLORS, PRINTS PER-cale. Trial Package, 25¢ postpaid. Grant's Supply Store, Warsaw, Illinois. 9-1 P.C.C.

SILK PATCHWORK PIECES FOR QUILTS, PILLOWS, Face Scrubbing, Assorted sizes, prints, colors. Large 60 cent yard bundle 99¢ postpaid. Michael Cravats, 33-J Union Square, New York. 10-10B6.

RABBITS

A. J. WHITE FLEMISH GIANTS-NEW ZEALAND WHITES-STANDARD CHINCHILLAS. Pedigreed and registrable. All ages, healthy, vigorous, fully guaranteed. Priced right. Aly Johnston Co., Polo, Illinois. 8-10B6.

S MONEY in RABBITS \$

Make Big Money raising Rabbits. Write for free booklet. \$1000 to \$10,000. Send us your rates at prices up to \$6.50 for each. Send 10¢ TODAY for illustrated booklet. We will send you a copy of our new book, ENGLEWOOD FUR FARMS, 2022 NORTHERN BOULEVARD, INDEPENDENCE, MISSOURI.



WIEDMAN'S RABBIT FARMER, LA CROSSE, Wisconsin. 2-month trial, dime. Sample free. 10-10B6.

SALES LETTER SPECIALISTS

PER 1000 COPIES, MR. FRUITGROWER, one letter and circulars that really sell-the kind I write. Also letters that collect money. Twenty years' experience and many satisfied customers. Try one letter or circular. Send \$5.00, special half price offer to readers of AMERICAN FRUIT GROWER. Write today. George H. Kimball, 445 S. Main Street, Elmhurst, Illinois.

SONGWRITERS

SONGWRITERS-READ "SONG REQUIREMENTS of Talking Pictures, Radio and Records," an explanatory, instructive book sent free to aspiring writers of words for songs. We compose, arrange music and secure copyrights. Write today. C. C. Newcomer Associates, 1674 Broadway, New York. tfa.

TREE AND WEED KILLER

LIQUID KILLS TREES, GRASS, WEEDS, EASILY made. Particulars free. Miller K Agency, Kencett, Arkansas. 10-10B6.

WEED BURNERS

KILL WEEDS WITH FIRE! 2000° F. FLAME destroys weeds, seeds and all. Write for Free Bulletin No. 76-X. AEROIL BURNER CO., WEST NEW YORK, NEW JERSEY, CHICAGO and SAN FRANCISCO. 10-10B6.

WANTED-TO BUY

WANTED-TO BUY, OLD ENVELOPES, STAMPS used before 1880. High prices paid by leading collector. Interesting information mailed without obligation. Address R. Rice, 2832 Ashbury Ave., Evanston, Illinois. 10-10.

Index to Display Advertisements

The concerns whose advertisements appear listed below are equipped to give prompt and satisfactory service to the American fruit grower. Most of them issue literature that is freely at the disposal of our subscribers. It is to the advantage of all that when writing to an advertiser you use the address exactly as it appears in the advertisement, and that you state in your letter: "I read Your Advertisement in AMERICAN FRUIT GROWER."

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EALAND
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